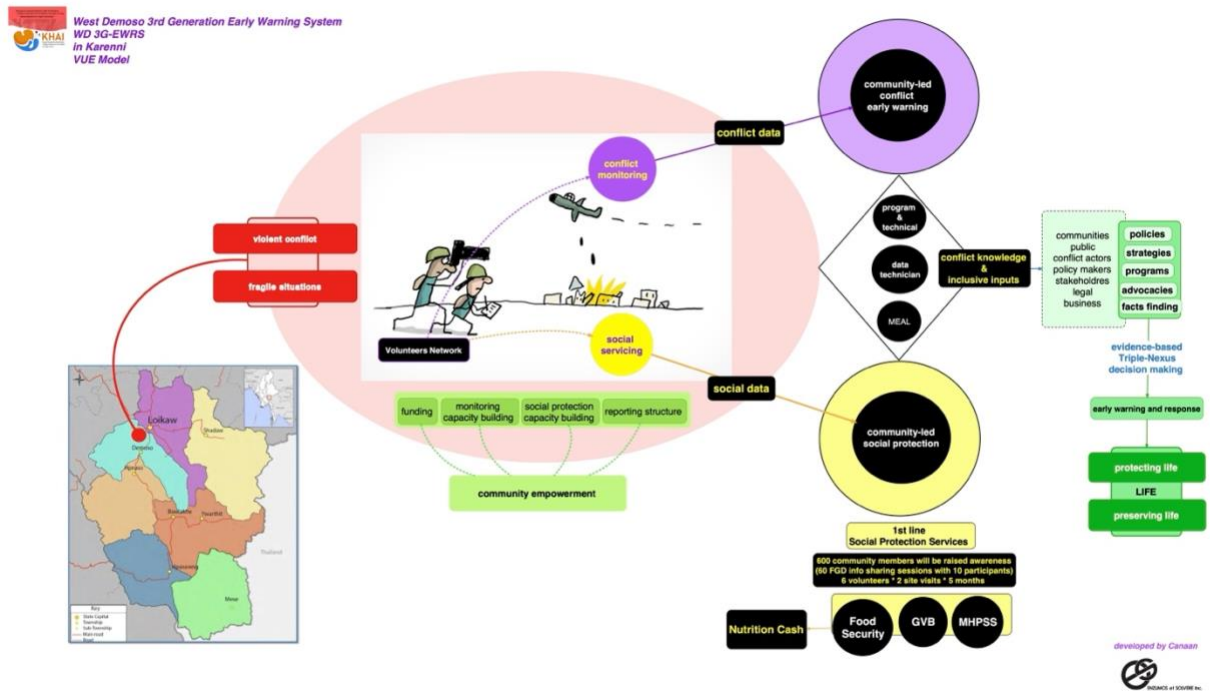
Beyond the Frontline: How Karenni Youth Built a Community-Owned Data Network for Civilian Protection
Civic Tech for Civilian Protection | Remote Management

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Introduction: The Information Gap in a Fragmented War

The battlefield is not the only place where Myanmar's war is fought. In West Demoso, inside bamboo shelters across eleven internally displaced person (IDP) camps, another struggle takes place every day: distinguishing reliable information from fear, rumor, and rapidly changing threats. When military aircraft approach, heavy artillery strikes nearby, or supply routes are cut, timely information is just as vital as food or medicine.

An unverified report can trigger chaotic panic. Delayed information prevents communities from preparing. And when external humanitarian access is restricted, waiting for a formal situation report from outside the area is simply too slow to save lives.

The critical question for displaced communities is therefore not just: *What is happening?* It is: **How can communities generate reliable information, analyze it, and act on it themselves?**

To answer this, the **Karenni Humanitarian Aid Initiative (KHAI)**, in technical collaboration with **ENZ**, developed the **West Demoso 3rd Generation Conflict Early Warning and Response System (WD 3G-EWRS)**. Rather than a conventional relief project, WD 3G-EWRS is designed as a core component of **Civic Tech for Civilian Protection through Remote Management**: utilizing locally generated data, structured quantitative analysis, and remote technical support to strengthen community decision-making when conventional access and centralized humanitarian systems are constrained.

The Architecture: From Community Observations to Actionable Intelligence

At the center of WD 3G-EWRS is **Matrix OS**, a structured analytical engine developed through an **Analysis–Evaluation–Learning–Building (A-E-L-B)** framework. Rather than treating field information as isolated anecdotes, the system organizes ground observations into a rigorous analytical architecture:

- **15 Thematic Variables & 68 Context-Specific Variables:** Tracking economic shifts, market disruptions, security movements, and community vulnerabilities.
- **177 Analytical Attributes & 136 System Features:** Measuring granular factors such as air strike proximity, bunker integrity, and monsoon-driven landmine displacement.
- **100-Point Emergency Priority Scoring System:** Classifying localized threats into operational bands to determine immediate response priorities.

Data collection is driven by **eight local volunteer monitors**—including young people who left the state education system through the Civil Disobedience Movement (CDM) following the 2021 coup. Operating across three geographic zones covering eleven IDP camps, alongside virtual media monitoring covering Karenni State, Southern Shan and beyond Myanmar, these monitors combine field observation with data management, triangulation, and structured analysis.

To ensure safety in a hostile operating environment, the system enforces strict operational security protocols, including anonymized identification coding protocol and encrypted, disappearing communications. Information systems operating in conflict zones must protect the people who generate the data just as carefully as the data itself.

From Warning to Response: The EEE Strategy

An early warning system has limited value if information stops at the alert. WD 3G-EWRS explicitly fuses monitoring and analysis with community-level response through KHAI's **EEE approach: Engagement, Explanation, and Expectation Management**.

Over twenty-three weeks of continuous operation, real-time intelligence directly informed critical frontline survival actions:

1. **Food Security & Emergency Nutrition:** When blockades severed transport routes and prices surged, priority data enabled the direct delivery of emergency nutrition cash assistance to **600 displaced households** and emergency rice rations to **316 households**.

2. **Psychological First Aid (PFA):** Recognizing that artillery and air raids shatter mental well-being long before physical shelters fail, field teams executed **27 stand-alone PFA sessions**, providing immediate stabilization and establishing referral pathways for acute mental health care.
3. **Compound Risk Mitigation:** Monitoring data identified environmental hazards—such as monsoon floods washing landmines into agricultural paths and compromising air-raid bunker foundations—allowing camp committees to implement timely safety and WASH interventions.

Local Youth as Knowledge Creators: The 9 Cluster Reviews

One of the most defining features of WD 3G-EWRS is that local youth are not treated merely as passive data collectors for external agencies. They are **knowledge producers and operational analysts**.

Following twenty-three consecutive weeks of fieldwork, the eight monitors convened to conduct **nine comprehensive Cluster Reviews**, examining accumulated time-series and cross-case information. They independently evaluated:

- Trauma dynamics and psychological first aid outcomes.
- Community trust and EEE strategy implementation.
- Economic conflict triggers, market closures, and survival trade-offs (such as negative coping behaviors under extreme debt).
- Stakeholder power relations, threat mutations, and regional media triangulation.

By transforming their findings into concrete intervention strategies categorized as *Reduce, Block, Create, or Sustain*, these young monitors demonstrated that technology does not replace local knowledge—it gives local knowledge greater structure, traceability, and operational power.

Empirical Proof of Performance

The cumulative record of the twenty-three-week monitoring cycle is documented in the initiative's Results Matrix:

- **39** Final Technical Products & **24** Analytical Tools designed and deployed.
- **280** Local Actor Field & Media Reports produced.
- **516** Warning Information Sets issued to camp leadership, civil society networks, and the **Karenni Interim Executive Council (IEC)**.
- **229** Direct Conflict Response Actions executed on the ground.
- **717** Co-Responding Partners engaged across a collaborative network of local authorities, civil society groups, and international academic researchers.

These figures matter not simply because they demonstrate scale. They demonstrate a chain: **Community observation → structured analysis → warning → coordination → response.** That chain is the core of WD 3G-EWRS.

A Remote Management Model for the Karenni Model

The significance of WD 3G-EWRS extends beyond the production of warnings. In highly constrained conflict environments, the conventional humanitarian model—where information is gathered locally, transmitted outward, analyzed elsewhere and eventually translated back into action—can create distance between the people experiencing risk and the people making decisions.

WD 3G-EWRS shortens that distance by keeping local people central to the production, interpretation, and use of information:
local monitors → community-generated information → structured data and analysis → technical support → risk prioritization → warning and coordination → locally relevant response.

The result is a community-anchored information and response architecture rather than an extractive, top-down technological intervention. When physical access is constrained, analytical capacity and technical support move through a locally anchored system rather than replacing it. This is the core of Civic Tech for Civilian Protection: technology placed in the service of local agency so that it becomes an infrastructure for self-reliance.

Conclusion: Building Infrastructure for Self-Reliance

As Myanmar's conflict grows increasingly complex, the experience of West Demoso offers a clear takeaway for donors, policymakers, and humanitarian practitioners: civilian protection cannot be managed solely from afar.

A community that can observe its environment, assess emerging risks, communicate reliable information and coordinate appropriate responses is building something more durable than a single intervention — it is building durable capacity for self-reliance. That is the wider purpose of this work.

When data sovereignty, structured tools, and analytical authority are placed directly into the hands of local youth, communities stop being passive recipients of aid. Instead, they build a durable, community-owned architecture to observe risk, interpret information, and protect one another.

Through WD 3G-EWRS, KHAI and ENZ have demonstrated that Remote Management is far more than a logistical workaround—it is a sustainable, community-owned infrastructure proving that even under conditions of extreme fragility, communities can lead their own way from survival to self-reliance.

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